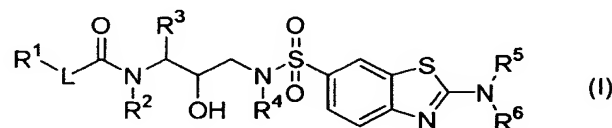


Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

1. (Currently Amended) A method of inhibiting mutant HIV protease in a mammal infected with said mutant HIV protease, said method comprising the step of administering to said mammal a therapeutically effective amount of a compound ~~The use of a 2-amino-benzothiazole,~~ having the formula



a *N*-oxide, salt, stereoisomeric form, racemic mixture, prodrug, ester or metabolite thereof, wherein

R₁ is hexahydrofuro[2,3-*b*]furanyl, tetrahydrofuranyl, oxazolyl, thiazolyl, pyridinyl, or phenyl optionally substituted with one or more substituents independently selected from C₁₋₆alkyl, hydroxy, amino, halogen, aminoC₁₋₄alkyl and mono- or di(C₁₋₄alkyl)amino;

R₂ is hydrogen or C₁₋₆alkyl;

L is a direct bond, -O-, C₁₋₆alkanediyl-O- or -O-C₁₋₆alkanediyl;

R₃ is phenylC₁₋₄alkyl;

R₄ is C₁₋₆alkyl;

R₅ is hydrogen or C₁₋₆alkyl;

R₆ is hydrogen or C₁₋₆alkyl;

~~in the manufacture of a medicament useful for inhibiting mutant HIV protease in a mammal infected with said mutant HIV protease.~~

2. (Currently Amended) The use method according to claim 1 wherein

R² is hydrogen;

R³ is phenylmethyl;

R⁴ is C₁₋₄alkyl, preferably isobutyl;

R⁵ is hydrogen or methyl;

R⁶ is hydrogen or methyl.

3. (Currently Amended) The method use according to claim 1 ~~or 2~~ wherein R⁵ is methyl or hydrogen and R⁶ is hydrogen

4. (Currently Amended) The method use according to claim 1 ~~any one of claims 1 to 3~~ wherein both R⁵ and R⁶ are hydrogen.

5. (Currently Amended) The method use according to claim 1 ~~any one of claims 1 to 4~~ wherein -L-R¹ is -O-(hexahydrofuro[2,3-b]furanyl), -O-tetrahydrofuranyl, -O-methyl- (optionally substituted phenyl), -O-methyl-pyridinyl, -O-methyl-thiazolyl, -O-methyl-thiazolyl, -methyl-O-(optionally substituted phenyl) or optionally substituted phenyl.

6. (Currently Amended) A method of inhibiting mutant HIV protease in a mammal infected with said mutant HIV protease, said method comprising the step of administering to said mammal a therapeutically effective amount of a compound selected from the group consisting of: ~~use according to any one of claims 1 to 5~~ wherein the compound is

{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;

{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid thiazol-5-ylmethyl ester;

{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;

{1-benzyl-3-[(2-dimethylamino-benzothiazole-6-sulfonyl)-isobutyl-amino]-2-hydroxypropyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;

{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid benzyl ester;

N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(2,6-dimethyl-phenoxy)-acetamide;

{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid pyridin-3-ylmethyl ester;

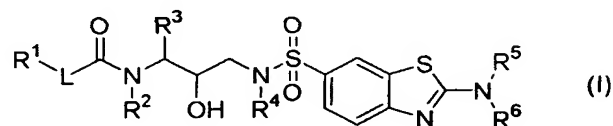
3-amino-N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-3-hydroxy-2-methyl-benzamide;
{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid tetrahydro-furan-3-yl ester;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-2-(2,6-dimethyl-phenoxy)-acetamide;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-3-fluoro-2-methyl-benzamide;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(4-aminomethyl-2,6-dimethyl-phenoxy)-acetamide;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid thiazol-5-ylmethyl ester;
3-amino-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-2-methyl-benzamide;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid tetrahydro-furan-3-yl ester;
N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-3-hydroxy-2-methyl-benzamide;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(4-iodo-2,6-dimethyl-phenoxy)-acetamide;
2-(4-aminomethyl-2,6-dimethyl-phenoxy)-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-acetamide;
2-(4-amino-2,6-dimethyl-phenoxy)-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-acetamide;
N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-4-bromo-2-methyl-benzamide;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid oxazol-5-ylmethyl ester;

4-amino-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-3-hydroxy-2-methyl-benzamide; and
or a salt, or a stereoisomeric form thereof.

7. (Currently Amended) The method use according to claim 1 ~~any one of claims 1 to 6~~ wherein the mutant HIV protease has at least one mutation at a position selected from 10, 71 and 84.

8. (Currently Amended) The method use according to claim 1 ~~any one of claims 1 to 7~~ wherein the fold resistance of the mutant HIV protease for the compound described in claim 1 ~~any one of claims 1 to 6~~ ranges between 0.01 and 100.

9. (Original) A compound having the formula



a *N*-oxide, salt, stereoisomeric form, racemic mixture, prodrug, ester or metabolite thereof, wherein

R₁ is hexahydrofuro[2,3-b]furanyl, tetrahydrofuranyl, oxazolyl, thiazolyl, pyridinyl, or phenyl optionally substituted with one or more substituents independently selected from C₁₋₆alkyl, hydroxy, amino, halogen, aminoC₁₋₄alkyl and mono-or di(C₁₋₄alkyl)amino;

R₂ is hydrogen or C₁₋₆alkyl;

L is a direct bond, -O-, C₁₋₆alkanediyl-O- or -O-C₁₋₆alkanediyl;

R₃ is phenylC₁₋₄alkyl;

R₄ is C₁₋₆alkyl;

R₅ is hydrogen or C₁₋₆alkyl;

R₆ is hydrogen or C₁₋₆alkyl;

provided that the compound is other than :

{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid benzyl ester;

{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid pyridin-3-ylmethyl ester;
{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid thiazol-5-ylmethyl ester;
{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(2,6-dimethyl-phenoxy)-acetamide;
3-amino-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
4-amino-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
5-amino-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
N-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-methyl-benzamide;
N-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-4-hydroxy-2-methyl-benzamide;
N-{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-3-hydroxy-2-methyl-benzamide; and
{(1S,2R)-3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid (S)-(tetrahydrofuran-3-yl) ester.

10. (Original) A compound according to claim 9 wherein R¹ is hexahydrofuro[2,3-b]furanyl or oxazolyl.

11. (Original) A compound according to claim 9 wherein R₁ is hexahydrofuro[2,3-b]furanyl, tetrahydrofuranyl, oxazolyl, thiazolyl, and L is a direct bond.

12. (Original) A compound according to claim 9 wherein R₁ is hexahydrofuro[2,3-b]furanyl, oxazolyl, thiazolyl, pyridinyl, or phenyl optionally substituted with one or more substituents independently selected from C₁₋₆alkyl, hydroxy, amino, halogen, aminoC₁₋₄alkyl and mono-or di(C₁₋₄alkyl)amino; and L is -O-.

13. (Currently Amended) A ~~compound~~ compound according to claim 9 wherein wherein R₁ is hexahydrofuro[2,3-b]furanyl, tetrahydrofuranyl, oxazolyl, or phenyl substituted with one or more substituents independently selected from C₁₋₆alkyl, hydroxy, amino, halogen, aminoC₁₋₄alkyl and mono-or di(C₁₋₄alkyl)amino; and L is C₁₋₆alkanediyl-O- whereby the -O- is attached to the nitrogen of the amide.

14. (Original) A compound according to claim 9 wherein R₁ is hexahydrofuro[2,3-b]furanyl, tetrahydrofuranyl, oxazolyl, thiazolyl, pyridinyl, or phenyl optionally substituted with one or more substituents independently selected from hydroxy, amino, halogen, aminoC₁₋₄alkyl and mono-or di(C₁₋₄alkyl)amino; and L is -O-C₁₋₆alkanediyl whereby -O- is attached to the R¹ group.

15. (Currently Amended) A compound according to claim 9 ~~any one of claims 9 to 14~~ wherein at least one of R₅ and R₆ is C₁₋₆alkyl.

16. (Currently Amended) A compound according to claim 9 ~~any one of claims 9 to 15~~ wherein R² is hydrogen; R³ is phenylmethyl; R⁴ is C₁₋₄alkyl.

17. (Currently Amended) A ~~a~~ compound according to claim 9 ~~any one of claims 9 to 16~~ having the formula

{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;

{1-benzyl-3-[(2-dimethylamino-benzothiazole-6-sulfonyl)-isobutyl-amino]-2-hydroxy-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;

N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-2-(2,6-dimethyl-phenoxy)-acetamide;

N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-3-fluoro-2-methyl-benzamide;

N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(4-aminomethyl-2,6-dimethyl-phenoxy)-acetamide;

{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid thiazol-5-ylmethyl ester;

3-amino-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-2-methyl-benzamide;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid tetrahydro-furan-3-yl ester;
N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-3-hydroxy-2-methyl-benzamide;
N-{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-2-(4-iodo-2,6-dimethyl-phenoxy)-acetamide;
2-(4-aminomethyl-2,6-dimethyl-phenoxy)-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-acetamide;
2-(4-amino-2,6-dimethyl-phenoxy)-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-acetamide;
N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-4-bromo-2-methyl-benzamide;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid oxazol-5-ylmethyl ester;
4-amino-N-{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-3-hydroxy-2-methyl-benzamide; or
a salt thereof, or a stereoisomeric form thereof.

18. (Currently Amended) A compound according to claim 9, selected from the group consisting of: ~~or 10 having the formula~~

{3-[(2-amino-benzothiazole-6-sulfonyl)-isobutyl-amino]-1-benzyl-2-hydroxypropyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;
{1-benzyl-2-hydroxy-3-[isobutyl-(2-methylamino-benzothiazole-6-sulfonyl)-amino]-propyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;
{1-benzyl-3-[(2-dimethylamino-benzothiazole-6-sulfonyl)-isobutyl-amino]-2-hydroxypropyl}-carbamic acid hexahydro-furo[2,3-b]furan-3-yl ester;
or a salt or stereoisomeric form thereof.